

DOCKET FILE COPY ORIGINAL

RECEIVED

JUL 29 1999

FCC MAIL ROOM

BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION

In the Matter of

NUMBERING RESOURCE OPTIMIZATION

) CC Docket No. 99-200

)  
)  
CONNECTICUT DEPARTMENT OF PUBLIC UTILITY  
CONTROL PETITION FOR RULEMAKING TO AMEND  
)  
THE COMMISSION'S RULE PROHIBITING  
)  
TECHNOLOGY SPECIFIC OR SERVICE SPECIFIC  
)  
AREA CODE OVERLAYS  
)

) RM No. 9258

)  
)  
MASSACHUSETTS DEPARTMENT OF  
)  
TELECOMMUNICATIONS AND ENERGY  
)  
PETITION FOR WAIVER TO IMPLEMENT A  
)  
TECHNOLOGY SPECIFIC OVERLAY IN THE 508,  
)  
617, 781, AND 978 AREA CODES  
)

) NSD File No. L 99-17

)  
)  
CALIFORNIA PUBLIC UTILITIES COMMISSION AND  
)  
THE PEOPLE OF THE STATE OF CALIFORNIA  
)  
PETITION FOR WAIVER TO IMPLEMENT A  
)  
TECHNOLOGY SPECIFIC OR SERVICE SPECIFIC  
)  
AREA CODE  
)

) NSD File No. L 99-36

---

COMMENTS OF THE COLORADO PUBLIC UTILITIES COMMISSION

---

July 30, 1999

No. of Copies rec'd  
List ABCDE

044

1. On June 2, 1999, the Federal Communications Commission (“FCC”) issued a Notice of Proposed Rulemaking (“NPRM”) in Docket No. 99-200, seeking comment on Numbering Resource Optimization methods designed to increase the efficiency with which telecommunications carriers use telephone numbering resources. The Colorado Public Utilities Commission (“COPUC” or “Colorado Commission”) respectfully submits the following comments on this Notice of Proposed Rulemaking.

2. Colorado is a state leading the effort to achieve maximum efficiency in number utilization. In 1997, the COPUC established the Colorado Numbering Task Force to provide solutions for a more efficient management of telephone numbers in the state of Colorado. This Task Force has been given the objective of providing the COPUC with a recommended solution to the long-term efficient use of telephone numbers within the area codes in Colorado, an objective timeline for the implementation of that long-term solution, and recommendations for interim number conservation measures that are consistent with the long-term solution.

3. On a national level, Commissioner Vincent Majkowski from the COPUC, is a voting member of the North American Numbering Council (“NANC”) representing the interests of the National Association of Regulatory Utility Commissions (“NARUC”). As such, he is well aware of what efforts are being made at the FCC, the NANC and state commissions across the country.

4. From the COPUC's perspective, implementation of number pooling and other numbering resource optimization measures is crucial for the continued development of competition in the telecommunications industry. The COPUC strongly urges the FCC to do everything it can to promote the efficient use of numbering resources, because not to do so results in an impediment to robust competition in all aspects of the telecommunications market. State commissions and industry players need strong guidance from the FCC in order to maximize resources. The decision that comes as a result of this NPRM should contain clear guidelines with technical standards, competitive neutrality, non-discrimination and interoperability solutions for states to follow. These rules should delegate authority to the states to implement the interim measures outlined below, in order to satisfy state-specific situations. These rules and the authority granted within them will have the greatest impact on the North American Numbering Plan ("NANP") the sooner they can be issued.

5. NARUC submitted comments to the NANC on the North American Numbering Plan Administrator's ("NANPA") projected exhaust of the NANP. This exhaust, according to the NANPA, will occur on or about the year 2007. The COPUC agrees with NARUC's comments on the projected exhaust when it stated, "NARUC is concerned that the recent acceleration in demand for area codes (driven primarily by demand for central office codes) is due to inefficient allocation of central office codes and not due to demand for telephone numbers." The COPUC is not concerned with predicting an exact date or even an exact year when the NANP will exhaust. Everyone involved in numbering issues knows that it is going to happen sooner or later if nothing is

done to correct the underlying problems. However, there is likely a significant cost associated with all numbering resource optimization methods. These costs should be analyzed at a high level and weighed against the benefits to determine the ultimate effects on industry players and consumers.

6. With that being said, the COPUC believes the FCC should focus on a long-term solution and work back from that solution to include more interim measures. Without a clear understanding by all parties involved in the process, of what the ultimate goal is, unnecessary time and money will be spent on interim measures that may actually be deleterious to the end result. The COPUC recommends that the long-term goal be individual telephone number (“ITN”) pooling on a statewide basis. The COPUC predicts that implementation of this solution could take from five to seven years from the date of a regulatory order. Currently, there are many network and administrative constraints to this solution. The following is a list, by no means exhaustive, of these constraints:

a. Statewide number pooling cannot be implemented until a neutral number pool administrator is in place and able to perform the number administration function.

b. Statewide number pooling must be structured to include widespread participation by industry segments. This includes participation by industry segments not currently LNP capable.

c. Statewide number pooling requires that the current wireline call rating process be changed by breaking down the association between the NPA-NXX and call rating by rate center.

d. Statewide number pooling requires, in many cases, a complete overhaul of the E-911 network to maintain integrity and reliability.

e. Statewide number pooling requires the use of other optimization methods, prior to pooling implementation, in order to be the most effective.

f. Statewide number pooling is by no means a flash-cut, and may require a step-by-step transition for pooling at a rate center, NPA, LATA or other geographic or political boundary. And also, it may require a transition from thousand block pooling to some other block of numbers, ultimately to ITN pooling.

7. With that ultimate goal in mind, the FCC can initiate more interim numbering resource optimization measures and gear those measures to help achieve ITN pooling on a statewide basis.

8. The COPUC would recommend, as an interim measure, that the FCC order a nation wide implementation of thousand block pooling at the rate center level. The COPUC, upon information from the Colorado Numbering Task Force, agrees with the time line for implementation as reported by the Numbering Resource Optimization – Working Group (“NRO-WG”) of 10 to 19 months from the date of a regulatory order. The thousand block number pooling option is built on existing technology and procedures. It relies on the network infrastructure and procedures used to implement service provider LNP. Therefore, in areas that are currently LNP capable, providers should have little problem implementing number pooling. The FCC must decide quickly on how to proceed in the search for an administrator who will maintain competitive

neutrality, non-discriminatory standards and cost efficiency. Also, the FCC should give clear guidance in setting up standards necessary for this administrator to most efficiently allocate numbers.

9. The COPUC has reviewed the work done by the NANC in regards to the audit of central office code holders. The COPUC would recommend that the FCC adopt the audit process contained in the NANC report on a Central Office Code Utilization Study ("COCUS") Hybrid model submitted to the Common Carrier Bureau on June 30, 1999. The information that would be gathered in this proposed audit is remarkably similar to the information the Colorado Commission has gathered for the past two years in its central office code utilization research. It is the COPUC's understanding that the timelines associated with the COCUS Hybrid will be presented to the Common Carrier Bureau by the end of August, 1999. Once the timelines have been determined by the NANC, the COPUC recommends the FCC order the process to begin.

10. When the COCUS Hybrid model is in place, and the information on number utilization can be captured, the COPUC would recommend that the NANPA be given the authority to withhold or reclaim blocks from carriers that have not met the guidelines of the audit process, either for forecasting or utilization information. However, there must be clear lines drawn as to when a carrier is out of compliance so that the NANPA can maintain competitive neutrality and its non-discriminatory role. If there is a question or conflict between NANPA and a carrier, the decision to reclaim blocks should be brought to the state commissions. It is the state commissions, working with

information from the NANPA, the carrier in question and the commission's own knowledge about local certificates and rules, that should have enforcement power over the auditing and provisioning guidelines as well as the ability to hear appeals. This enforcement power should include not only reclamation and withholding of blocks, but also, sanction provisions for situations when a violation has occurred and a block request is not pending.

11. In order for thousand block pooling to have the greatest impact on slowing the exhaust of the NANP, as many carriers as possible must participate. This includes wireless providers, and wireline providers of all types that are not yet LNP capable. The COPUC is aware of the forbearance issued to CMRS providers until November 24, 2002. CMRS providers do not have to implement LNP until that November date, and then only in the top 100 Metropolitan Statistical Areas ("MSA"). This should be a concern given the NRO-WG's timeline for implementation of thousand block pooling. Realistically, the earliest we can expect an FCC order in Docket 99-200 is fourth quarter of 1999. Nineteen months for wireline implementation from that issued date, barring any appeals, stays, etc. would have wireline carriers pooling numbers by approximately August of 2001. This leaves an additional 14 months until CMRS providers are required to be LNP capable. The COPUC would recommend that the FCC's CMRS LNP Forbearance Order be reversed and CMRS providers be required to implement LNP within a 12 month time period from the date of an FCC order and thousand block pooling on the same time line as wireline providers, or by August of 2001.

12. The COPUC does believe that to achieve the greatest benefit from number pooling as possible, wide spread participation from all industry segments is needed., The Colorado Numbering Task Force, for the last two years, has conducted number utilization research. This research, which had 100% participation from code holders in Colorado, showed, for both 1997 and 1998, cellular and PCS providers had an average utilization percentage of 58% overall. As of January 1, 1999, CMRS providers have been assigned 349 NXX codes in the state of Colorado. In actuality, the number of uncontaminated codes (using a contamination rate of 10%) as of January 1, 1999 was over 1300. This translates to over 1,300,000 numbers that could potentially be available for pooling.

13. The FCC in its NPRM asked for comment on a proposed roll out of thousand block pooling first in the top 100 MSAs. The COPUC does not have a problem with this suggestion, theoretically. In practice, however, it may pose some problems. Colorado, in the 303 area code, completed a rate center consolidation last year. This action decreased the number of rate centers in the 303 area code from 43 to 16. Colorado now has a rate center in the 303 area code that is larger than the Denver MSA. An alternative geographic boundary to the Denver MSA would have to be used for pooling in the Denver metropolitan area in order to implement pooling by rate center. This is clear indication of why the FCC and states need to work together on a continuing basis to solve these state-specific issues.



14. The COPUC would recommend an expedited completion of number pooling once the top 100 MSAs are capable. We would like to see pooling capability on a nation wide basis, in every rate center, by fourth quarter 2002. There are vast quantities on numbers available in the rural areas of Colorado, and presumably in most other states. We need to work with these rural providers beginning now, to determine the feasibility and cost effectiveness of becoming LNP capable and therefore pooling capable, or of designing an alternative solution, such as the one suggested by the Colorado Numbering Task Force and referenced in paragraph 175 of the FCC's NPRM.

15. During the 10-19 month implementation period, and for areas not in the top 100 MSAs that might not have pooling capability until 2002, the COPUC recommends several interim measures that, when done with forethought and input from the industry, can have significant effects on a state's number resources. These interim measures are rate center consolidation, ten-digit dialing, and a rule requiring companies to maintain thousand block integrity.

16. In 1998, the COPUC ordered and completed a rate center consolidation ("RCC") in the 303 area code which includes the Denver metropolitan area. This decision, No. C98-439, consolidated 43 rate centers into 16. The Colorado Commission stated in this order,

"Such a consolidation will improve the level of efficiency by which the public resource of NXX codes is used by local exchange carriers ("LECs")

without impacting more than necessary the local calling area or the rate for basic local exchange service. While a single rate center in the 303 NPA would provide for the most efficient use of numbering resources, a single rate center would adversely impact the Small LECs and result in unwarranted local calling area expansions extending into the 970 and 719 NPAs.”

This consolidation was first ordered May 5, 1998 and was completed almost 8 months later on December 31, 1998.

17. The COPUC would urge the FCC to encourage state commissions to analyze their individual rate centers for the potential to consolidate. State commissions should be aware of the possible problems that exist when rate centers are consolidated, namely cost of changing local calling areas and emergency 911 services. These problems require input from industry players, emergency service providers and consumers, before a decision is made. State commissions should also be told of the benefits that can be realized when rate centers are consolidated correctly and timely. The ultimate decision, however, should be left up to the states.

18. The problem with emergency 911 services is related to the county jurisdictional boundaries and their lack of conformity to telephone rate centers. Normal 911 delivery is not a problem. However, when the telephone number information somehow gets garbled or otherwise cannot locate the customer, the current system will

send the call to an appropriate default Public Safety Answering Point (“PSAP”) based on the trunk group from which the call originates. If the information associated with a telephone number is carried to the router, but then gets dropped or is not in the database, the 911 call is routed to the PSAP that has been preprogrammed to receive calls from that particular NXX. If a large metropolitan area, such as Denver, is consolidated into a single rate center and local exchange providers are allowed to obtain a single NXX to serve that rate center, the location identity associated with today’s rate center designs would be lost. The National Emergency Number Association (“NENA”) states in its comments to the Common Carrier Bureau, NSD File No. L 98-134, that PSAPs should be involved in rate center consolidation “before an (*sic*) RCC process existed. That is, they ought to help determine whether RCC is a feasible option in the first place.”

19. The COPUC agrees with this statement. The integrity of the 911 network should be maintained throughout the implementation and subsistence of any number optimization measure. Once the 911 network can be redesigned without NXX-rate center dependence, the ultimate pooling solution will not effect the 911 delivery. The Colorado Numbering Task Force is currently working in conjunction with our state’s E-911 Task Force to redesign the emergency services’ network. This redesign must include the following: ten digit telephone number transfer to the tandem router and PSAP, use of digital transmission of the Automatic Number Identifier (“ANI”), eventual upgrades to SS7 for signaling of telephone number data, 5E12 (or equivalent) software generic for tandem to tandem transfer and an upgrade of US West Communications, Inc.’s 911 tandem router from an analog switch to a digital switch. There are significant costs

involved with these upgrades and modifications. In conjunction with network redesign, we are exploring ways to fund these changes. The Colorado Commission just recently opened an investigatory docket to examine the 911 network and the upgrades necessary to maintain integrity upon the implementation of various numbering resource optimization measures.

20. The bottom line with rate center consolidation is that we gain a substantially more efficient use of central office codes for new facilities-based local exchange providers who may enter the market in the future. Also, if acted upon quickly, states can reclaim some unused central office codes of local exchange providers already in operation in the state. In Colorado, we have had 10 Competitive Local Exchange Carriers ("CLECs") begin offering service in U S West Communications , Inc.'s territory in the 303 NPA since January 1, 1999. Before rate center consolidation took place, these CLECs could have potentially needed 380 central office codes for a footprint in the US West portion of the 303 area code, which was comprised of 38 rate centers. Because of the rate center consolidation, this number of central office codes is lowered to 110 (11 remaining rate centers). This number demonstrates two things. First, it demonstrates the great benefit rate center consolidation can have on number resource optimization, but it also demonstrates the fact that rate center consolidation alone will not solve our numbering crisis.

21. Another interim measure that should be considered by the FCC is ten digit dialing. The Colorado Commission believes that, today, statewide ten digit dialing is a

matter best left up to the states. It is the state commissions that can best balance numbering issues with individual local issues to determine how best to serve their constituents. However, it is increasingly obvious that some time in the future, a national plan for ten digit dialing is inevitable. A high percentage of ten digit dialing occurs in many urban areas today as a result of NPA overlays and on a growing basis, splits. Callers are having to dial ten digits in area code split situations to call across the street in many instances. As states make more and more area code splits to have a NPA serve a smaller and smaller area, more ten digit calls are required. Colorado recently implemented mandatory ten digit dialing throughout the 303 NPA as we went through an area code overlay. At the Colorado Commission, we were very concerned with the impact on consumers and even manned the phones at an increased level for a week when the ten digit dialing became mandatory. Weeks after implementation, the Commission had received only three phone calls from customers complaining or having problems. Adapting to ten digit dialing in Colorado has gone more smoothly than anyone could have predicted. This is in large part because of a strong customer education campaign that included radio, television and newspaper advertisements.

22. During the interim period between today and when the FCC determines that national ten digit dialing should be implemented, the COPUC recommends the FCC consider the implementation of ten digit dialing in regions that currently have multiple NPAs in one local calling area, and the continued mandate of ten digit dialing in area code overlay situations. This action would have two significant benefits. The first benefit is that the utilization of numbering resources will be improved through the use of area

code overlays instead of additional splits into smaller and smaller geographic areas. Overlays increase the efficiency in assignment of NXX codes as compared to geographic splits. Geographic splits also require that a significant number of customers change area codes imposing substantial costs. Overlays do not have such designed central office code inefficiency, nor do customers have to change their telephone numbers when an overlay is introduced. States could make rational decisions on future area code relief plans based on numbering optimization benefits and what truly is best for their consumers instead of worrying about the political ramifications of introducing ten digit dialing.

23. As an aside, the COPUC would like to make it clear to the FCC that we do not support technology specific overlays. Although overlays have great numbering benefits associated with them, technology specific overlays degrade the competitive neutrality of area code relief. As stated in our decision in Docket 97A-103T when we were deciding between a split and an overlay in the 303 NPA, “Of specific concern to the Commission is the potential adverse impact on competition that the implementation of a wireless overlay as a method of area code relief might have on the future convergence, following the introduction of number portability, etc., of wireless and wireline services. Additionally, the burden and inconvenience attributable to the need to reprogram all wireless telephonic devices with “303” telephone numbers in the event a wireless overlay were adopted appears to unfairly place the great majority of the cost of the implementation of the new NPA on a specific segment of the telecommunications industry.”

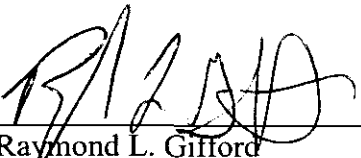
24. The second significant benefit to mandating ten digit dialing when a state chooses an overlay or when there are multiple NPAs within one local calling area, is that protected codes can be immediately freed up for assignment to customers. This is especially important for area codes facing jeopardy in the near-term. It would also allow NXX codes to begin with "0" and "1" which is not technically possible under the current numbering scheme. This could potentially add two million numbers to every area code.


25. The last interim numbering optimization measure that should be implemented is a national rule on utilization of numbers and thousand block integrity. On November 5, 1997, the COPUC issued an order adopting an emergency rule regarding the efficient use of telephone numbers, 4 *Colorado Code of Regulations* 723-49. This rule is to provide for the efficient management of telephone numbers in our high growth area, the 303/720 area. The correct management of telephone numbers with a goal of maintaining thousand block integrity within a central office code will enable such measures as number pooling to be most effective. If companies are ordered to assign numbers sequentially when ever possible, and to assign numbers, including vanity numbers, from a single thousand block within an NXX until that thousand block is near exhaust, we will have many more thousand blocks available for reclamation to a number pool, when implemented.

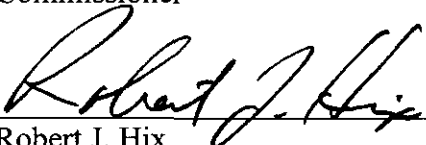
Respectfully submitted:

**COLORADO PUBLIC UTILITIES COMMISSION**

By:

  
\_\_\_\_\_  
Raymond L. Gifford  
Chairman

  
\_\_\_\_\_  
Vincent Majkowski  
Commissioner

  
\_\_\_\_\_  
Robert J. Hix  
Commissioner